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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/777,397	02/12/2004	Fatima M. Mayer	D/A3302	5783

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Patent Documentation Center
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100 Clinton Ave. S.
Rochester, NY 14644

EXAMINER

RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/777,397

Applicant(s)

MAYER ET AL.

Examiner

Christopher RoDee

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,13-19,22 and 26-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,13-19,22 and 26-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election of Group I drawn to a toner in the reply filed on 17 March 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). The non-elected claims have been canceled in the response.

Response to Arguments

Applicant's arguments with respect to the elected claims have been considered but are moot in view of the new ground(s) of rejection. All previously applied rejections are withdrawn based upon applicants' amendments and remarks.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1, 3-5, 7, 13-19, 22, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamano *et al.* in US Patent 6,500,594 in view of JP 06-180511.

Hamano discloses a toner containing a sulfopolyester (col. 4, l. 49 – col. 5, l. 45; Examples I & II), a coloring agent in an amount of from 0.1 to 40 parts by weight, preferably 1 to 30 parts by weight (col. 7, l. 52 – col. 8, l. 15), and an aliphatic acid amide, such as oleic amide, erucic amide, recinoleic amide, or stearic amide, as a releasing agent (col. 8, l. 54-59). The releasing agent is present in an amount of from 1 to 20 parts by weight, preferably 2 to 15 parts

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by weight, based on 100 parts of the toner components (col. 9, l. 1-4). The sulfopolyesters in Examples I and II have Mw of 9200 and 11000, respectively, and Mn of 6000 and 4700, respectively. This gives a polydispersity of 1.53 and 2.34, respectively. Useful coloring agents include phthalocyanine blue (Example I: a cyan colorant) and carbon black (col. 7, l. 57). The toner is mixed with a carrier to form a two-component developer (col. 14, l. 34+).

Hamano does not disclose the releasing agent of the claims as now presented. However, the JP document teaches that acid amide releasing agents are effective to prevent offset and winding of paper at the time of fixing while also minimizing deterioration of flowability and transferability. The acid amide releasing agents have the formula $R_1\text{-CONH-R}_2$ where R_1 and R_2 are 9 to 21 carbon atom alkyl chains. Various alkyl acid amide releasing agents are disclosed in the JP document, including stearyl erucamide (¶ [0009]). As discussed in the JP document, these alkyl acid amides are effective with various binder resins, including polyesters (¶ [0010]). Because stearyl erucamide is a preferred alkyl amide on the instant invention it appears that this compound inherently has a melting point within the range specified in dependent claims 3 and 4.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the alkyl acid amide of the JP document as the releasing agent in the Hamano because Hamano calls for acid amide releasing agents and the JP document discloses such a compound that not only has reduced offset but also minimizes deterioration of flowability and transferability during copying. It would also have been obvious to use a other alkyl acid amides from the specific teachings and general disclosure of the JP document with alkyl chain lengths within the range taught and particularly near those exemplified in ¶ [0009] to optimize the offset reduction effects.

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Claims 1, 3-8, 13-19, 22, and 26-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sacripante *et al.* in US Patent 6,140,003 in view of JP 06-180511.

Sacripante discloses a toner containing a sulfopolyester, a colorant, and a fuser roller releasing agent (Abstract; col. 6, l. 47 – col. 7, l. 47; col. 8, l. 24-30). Useful resins include poly(1,2-propylene-sodio 5-sulfoisophthalate), poly(1,2-propylene-calcio 5-sulfoisophthalate), poly(1,2-propylene-tetralkylammonium 5-sulfoisophthalate), poly(ethylene-sodio 5-sulfoisophthalate), poly(ethylene-calcio 5-sulfoisophthalate), poly(ethylene-dimethyldistearylammonio 5-sulfoisophthalate), copoly(1,2-propylene-diethylene-terephthalate), copoly(1,2-propylene-diethylene sodio-5-sulfoisophthalate), copoly(1,2-propylene-diethylene-terephthalate), copoly(1,2-propylene-diethylene calcio-5-sulfoisophthalate), copoly(1,2-propylene-diethylene-terephthalate), copoly(1,2-propylene-diethylene calcio-5-sulfoisophthalate), copoly(1,2-propylene-diethylene-terephthalate), copoly(1,2-propylene-diethylene dimethyldistearylammonio-5-sulfoisophthalate), copoly(propoxylated bisphenol A-fumarate), or copoly(propoxylated bisphenol A-sodio 5-sulfoisophthalate) (col. 6, l. 47-65). A preferred polyester is copoly(1,2-propylene diethylene terephthalate)-copoly-(1,2-propylene diethylene sodium 5-sulfoisophthalate) (col. 8, l. 21-23). The polyester produced in Example II, which is a copoly(1,2-propylene diethylene terephthalate)-copoly-(1,2-propylene diethylene sodium 5-sulfoisophthalate), has a Tg of 55.5 °C with a Mn of 5100 and a Mw of 9300 giving a polydispersity of 1.82. Useful colorants include carbon black (col. 8, l. 31-43) and the cyan colorants of the Examples (e.g., Example IX). Sacripante does not disclose the release agent of the instant claims, but, as discussed above, the JP document teaches that acid amide releasing agents are effective to prevent offset and winding of paper at the time of fixing while also minimizing deterioration of flowability and transferability. The acid amide releasing agents have the formula R1-CONH-R2 where R1 and R2 are 9 to 21 carbon atom alkyl chains. Various alkyl

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acid amide releasing agents are disclosed in the JP document, including stearyl erucamide (§ [0009]). As discussed in the JP document, these alkyl acid amides are effective with various binder resins, including polyesters (§ [0010]). Because stearyl erucamide is a preferred alkyl amide on the instant invention it appears that this compound inherently has a melting point within the range specified in dependent claims 3 and 4.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the alkyl acid amide of the JP document as the releasing agent in the Sacripante because Sacripante calls for releasing agents and the JP document discloses alkyl amide releasing agent compounds that not only has reduced offset but also minimizes deterioration of flowability and transferability during copying. It would also have been obvious to use other alkyl acid amides from the specific teachings and general disclosure of the JP document with alkyl chain lengths within the range taught and particularly near those exemplified in § [0009] to optimize the offset reduction effects.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on most weekdays from 6:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cdr
18 April 2006



CHRISTOPHER RODEE
PRIMARY EXAMINER